

CASE STUDY

HYDRISEQ 1750



CHEMISTRY FROM HYDRITE KEEPS CUSTOMER WITHIN PERMITTED ZINC LEVELS

Hydrite Chemical Co. finds solution to heavy metal removal at plating facility.

Hydriseq 1750 - Non-toxic, heavy metal precipitant

Facility Type - Zinc phosphate metal finishing and paint facility

CHALLENGE

Wastewater consisted of zinc phosphate mixed with acid pickle, alkaline cleaners and rinse water at a 10 gpm flow rate. The equipment comprised of an equalization tank, neutralization tank, flocculation mix tank, lamella clarifier and plate and frame sludge press. Zinc effluent discharge levels above state permit levels of 2.61 mg/l daily max and 1.48 mg/l monthly average.

OBJECTIVE

Reduce zinc effluent levels by feeding Hydriseq 1750 in addition to hydroxide precipitation, coagulation and flocculation.

SOLUTION

Add Hydriseq 1750 to an area of good mixing with a minimum retention time of 5 minutes with pH level of 8 to 10. Feed prior to flocculant polymer addition. Typical dosage is 100-200 ppm or 0.1-0.2 gallons of Hydriseq 1750 per 1000 gallons of wastewater.

FIELD TEST DATA

Product	Dosage (ppm)	Zinc (Mg/l)	pH
Control	---	2.170	9.8
Hydriseq 1750	100	0.278	9.8
Hydriseq 1750	200	0.136	9.8

RESULTS

Reliable and stable effluent zinc readings.

Zinc reduced to 0.14 mg/l with Hydriseq 1750 versus a hydroxide precipitation control sample result of 2.17 mg/l at pH 9.8.

Zinc level brought within permit level.

Providing Creative Solutions

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